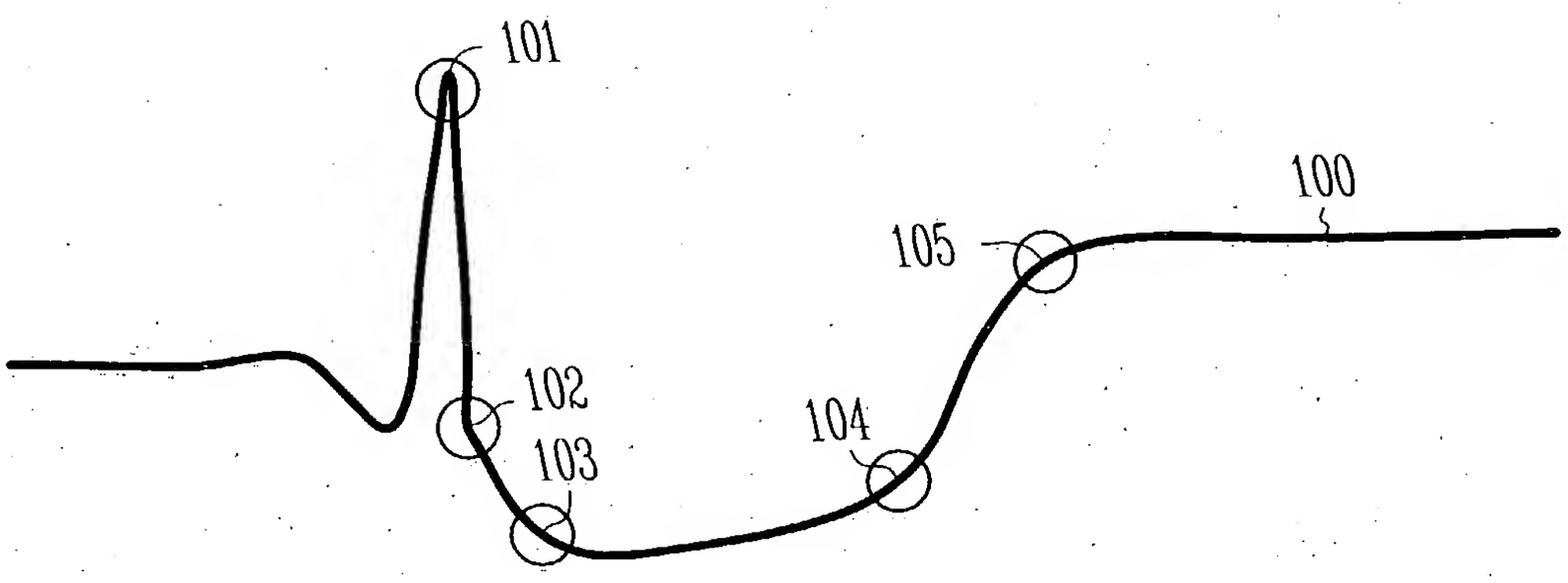

Fig. 1

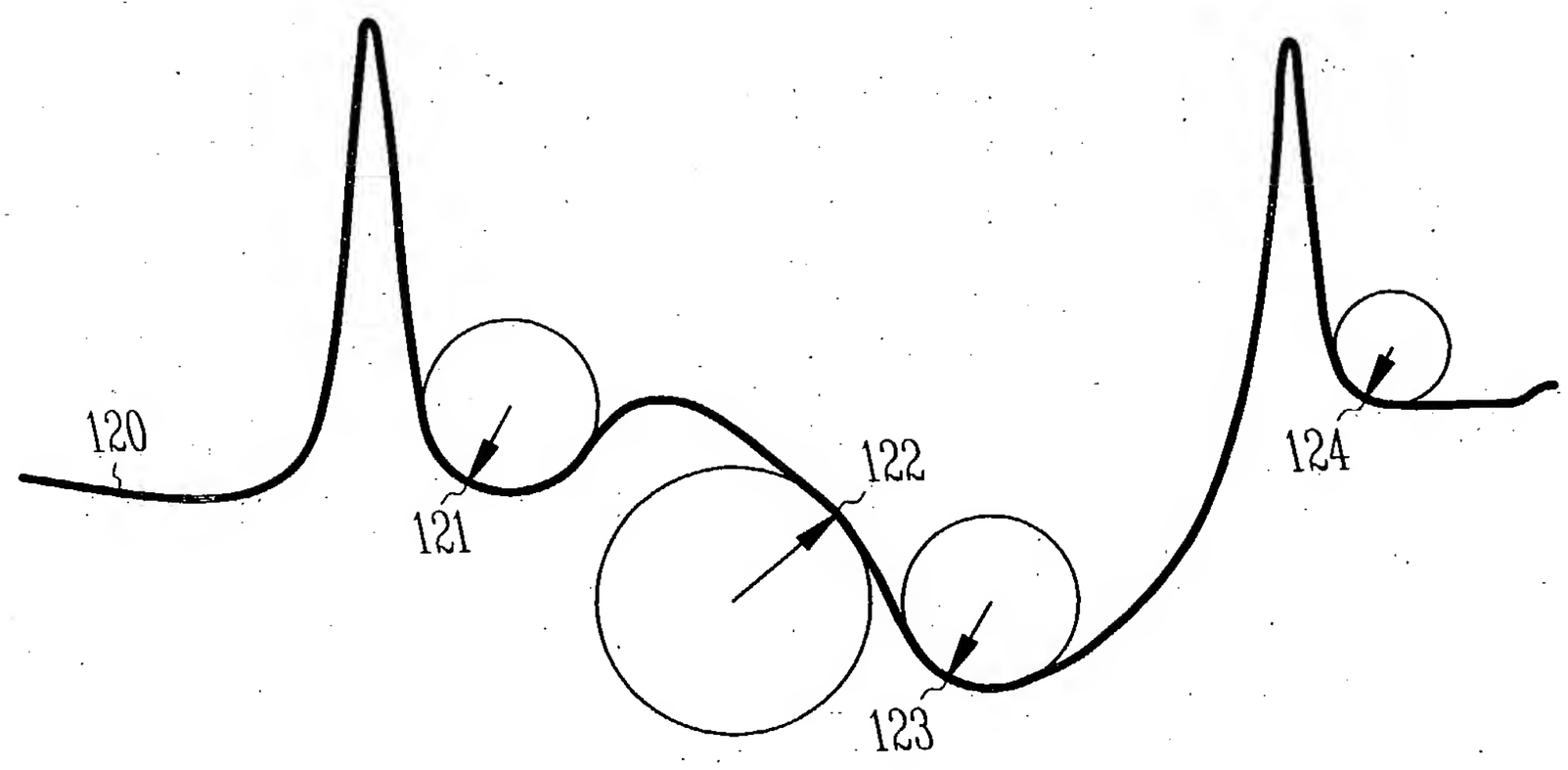

Fig. 2

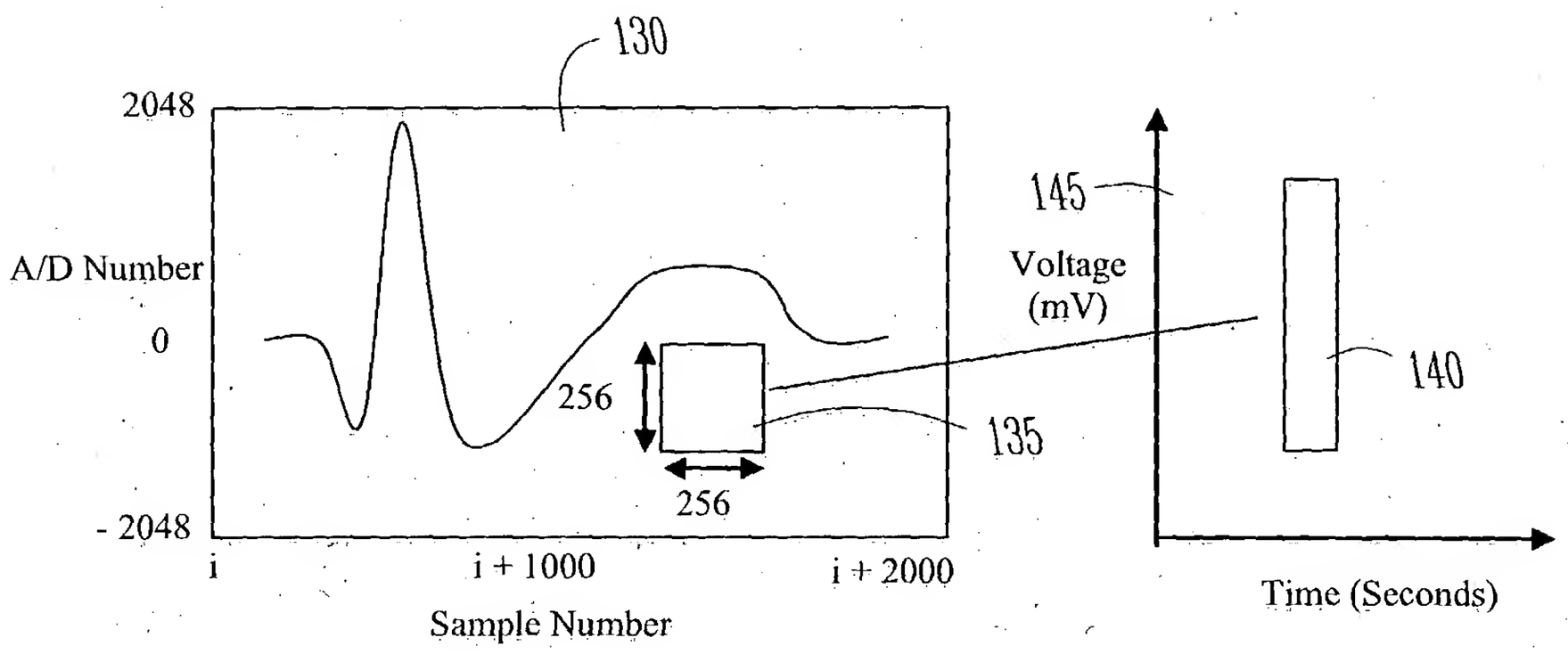
130
2048
A/D Number
0
- 2048
256
256
135
145
Voltage
(mV)
140
i
i + 1000
i + 2000
Sample Number
Time (Seconds)

Fig. 3

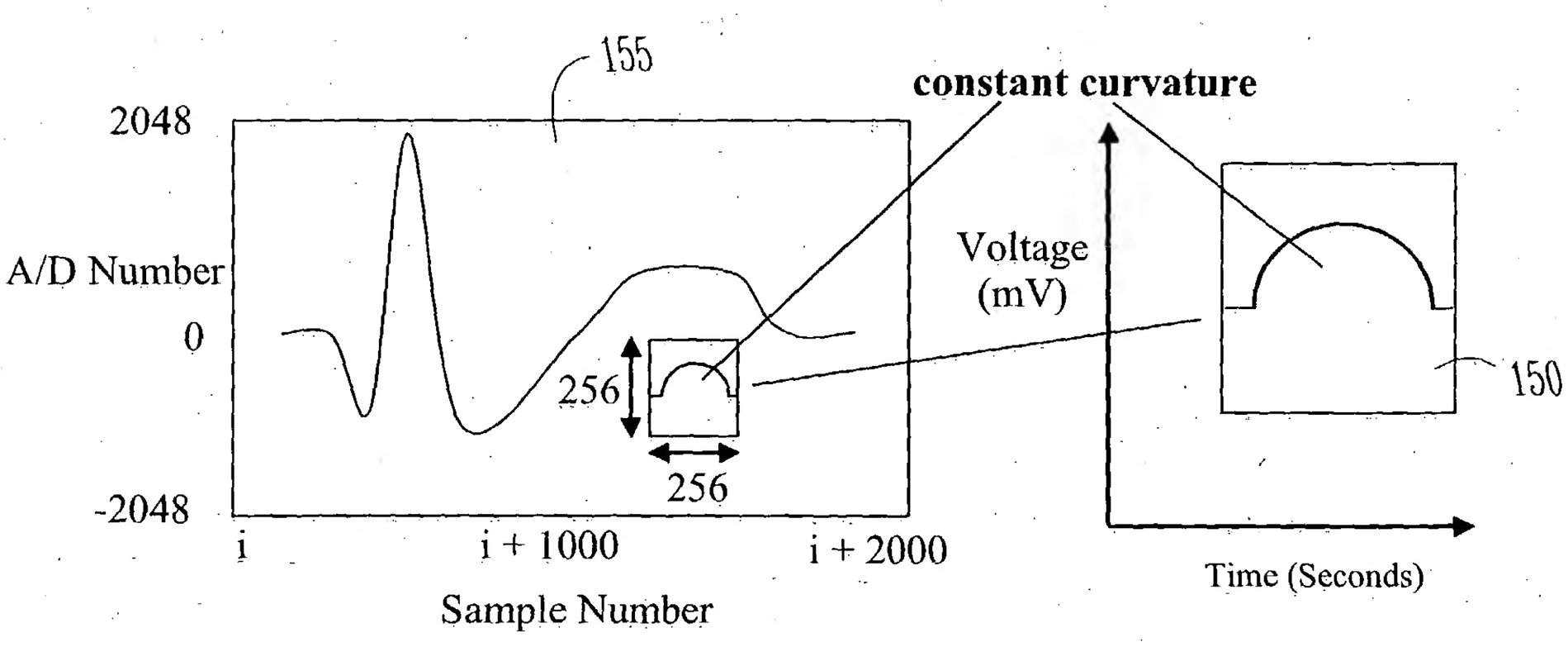
155
constant curvature
2048
A/D Number
0
-2048
256
256
Voltage
(mV)
150
i
i + 1000
i + 2000
Sample Number
Time (Seconds)

Fig. 4

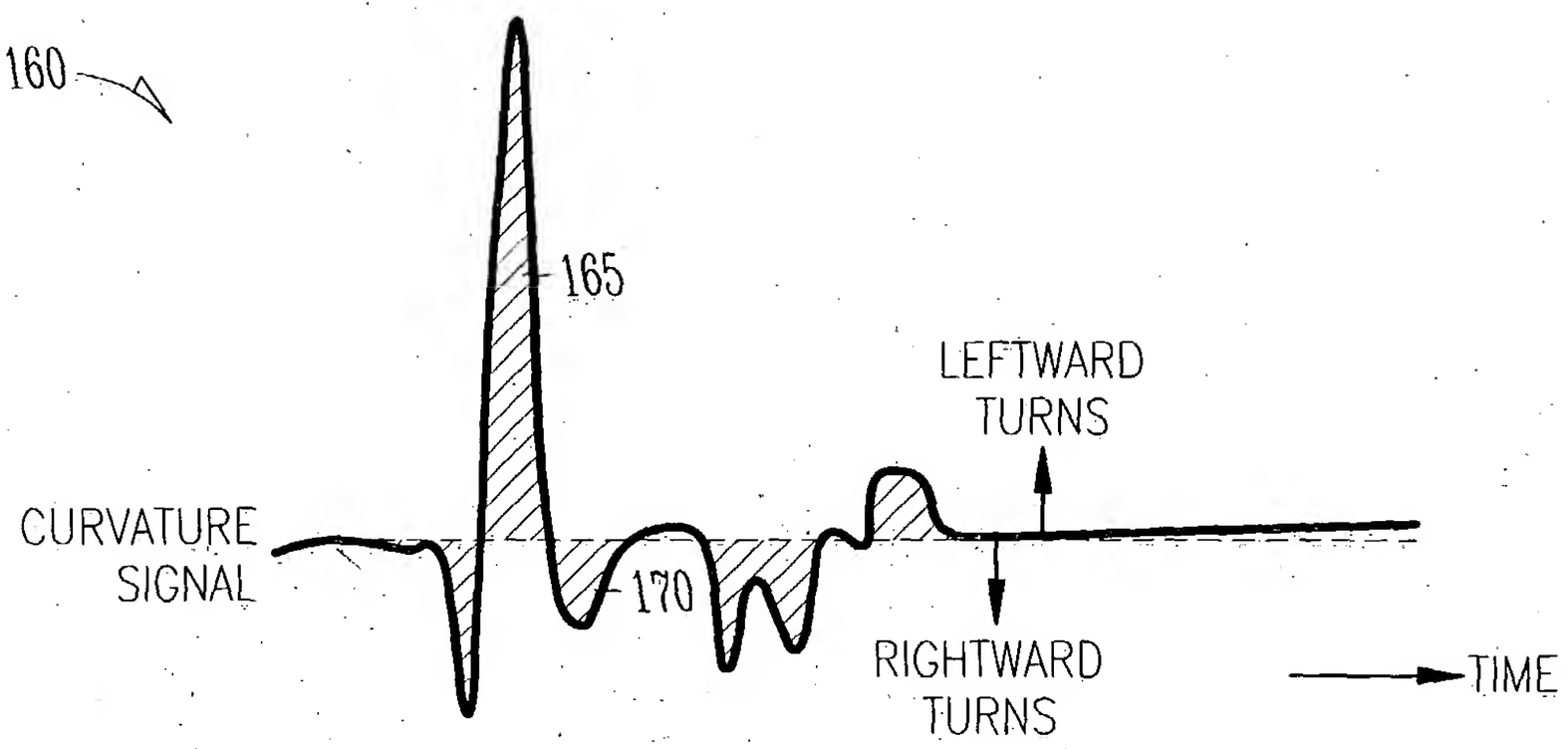
160
165
LEFTWARD
TURNS
CURVATURE
SIGNAL
170
RIGHTWARD
TURNS
TIME

Fig. 5

TITLE: SIGNAL COMPRESSION BASED ON CURVATURE PARAMETERS
INVENTORS NAME: Robert J. Sweeney
Dkt #: 279.635US1

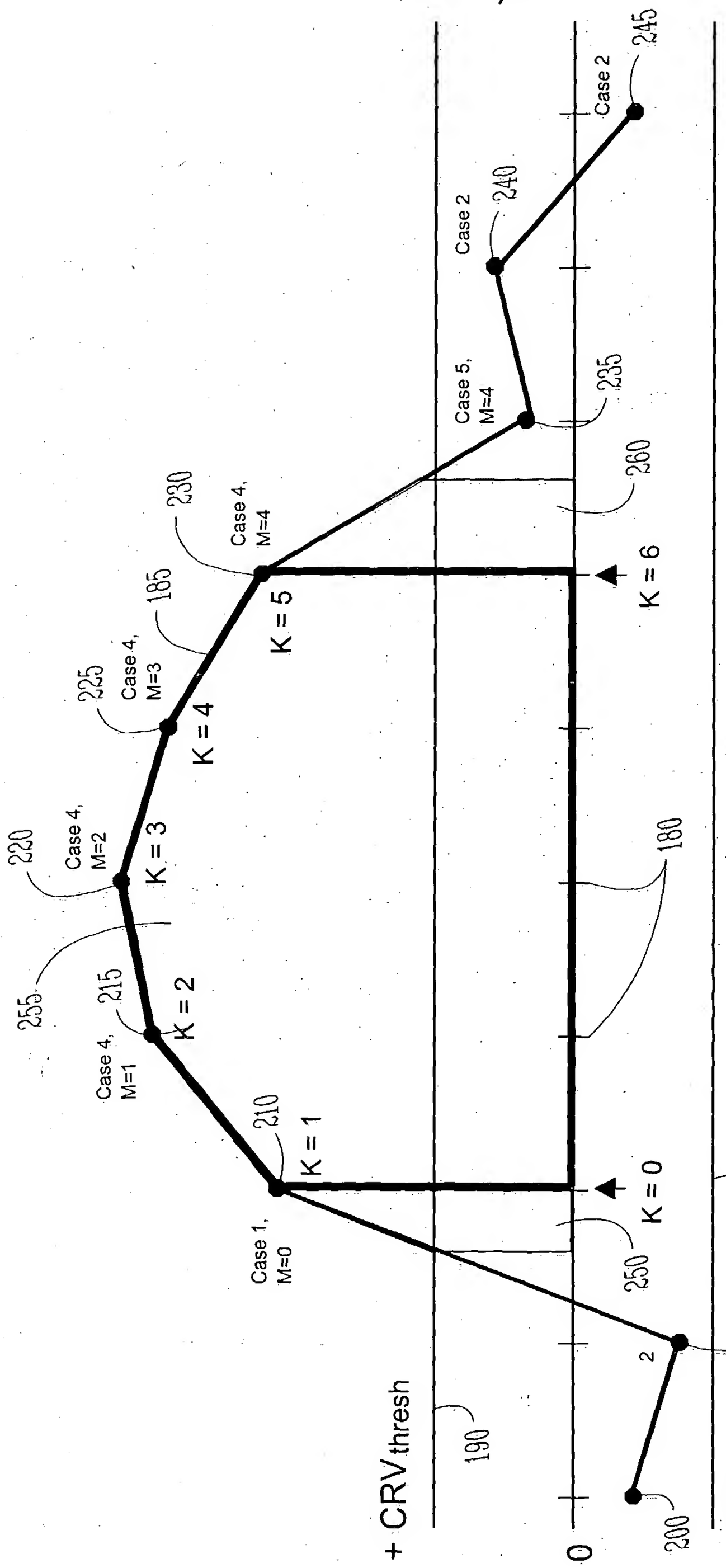

Fig. 6

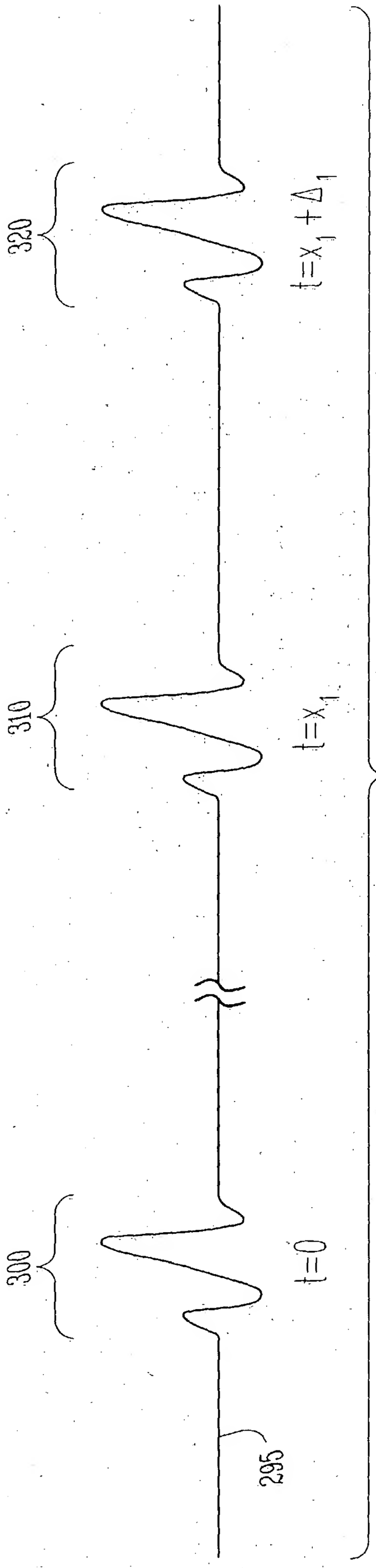

Fig. 7

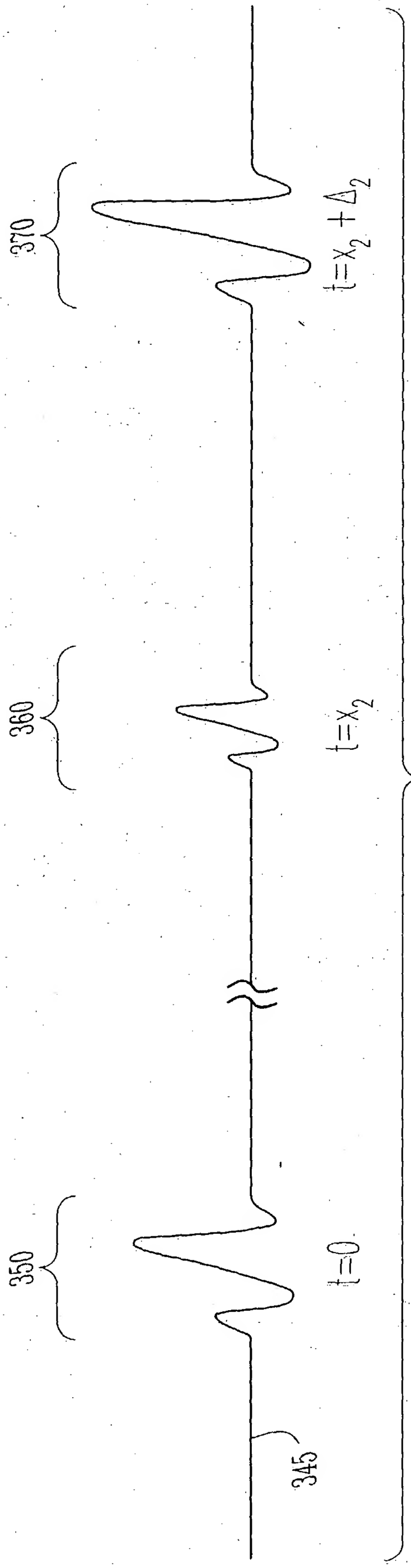

Fig. 8

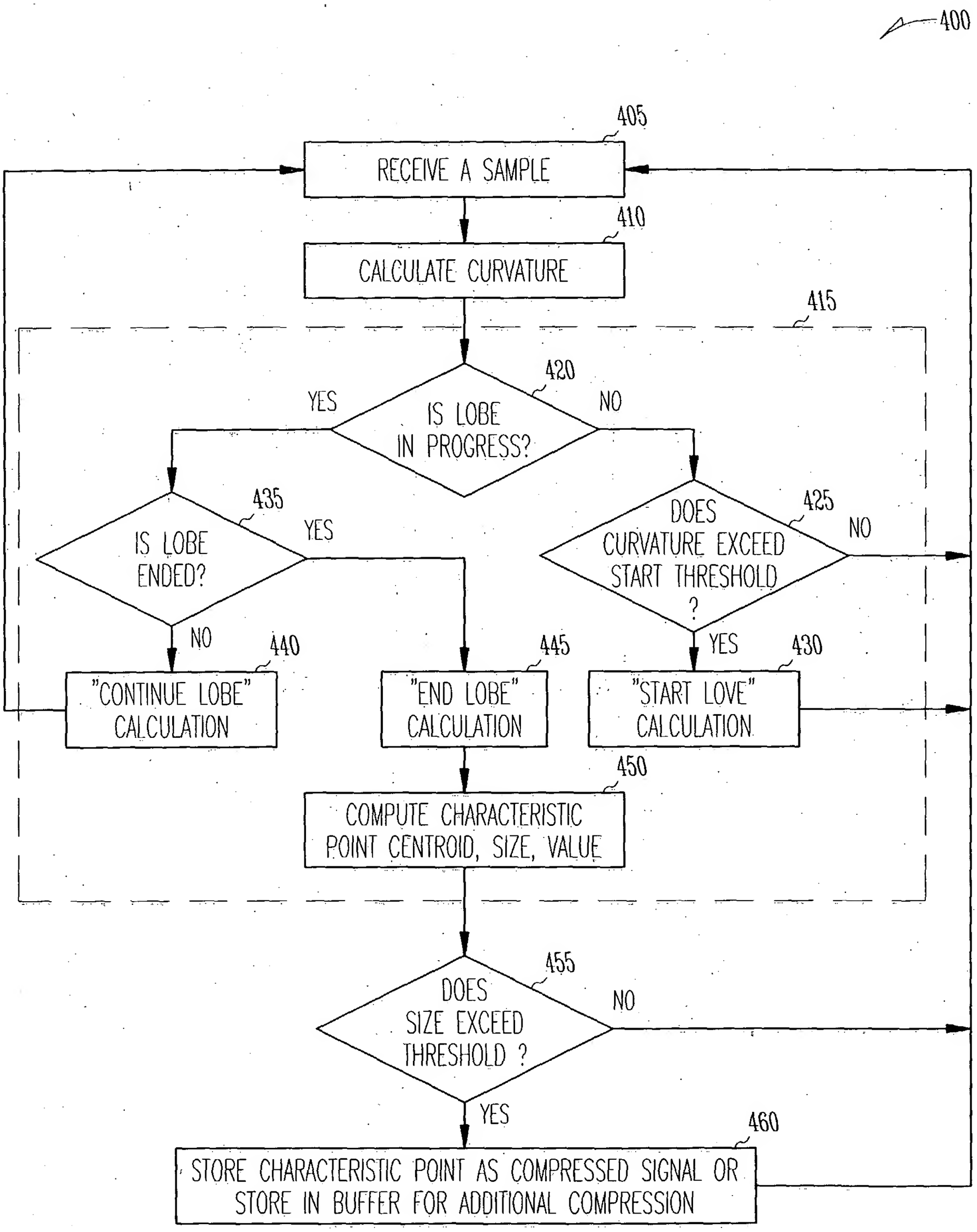
400
405
RECEIVE A SAMPLE
410
CALCULATE CURVATURE
415
420
IS LOBE IN PROGRESS?
YES
NO
435
IS LOBE ENDED?
YES
NO
425
DOES CURVATURE EXCEED START THRESHOLD ?
NO
YES
440
"CONTINUE LOBE" CALCULATION
445
"END LOBE" CALCULATION
430
"START LOVE" CALCULATION
450
COMPUTE CHARACTERISTIC POINT CENTROID, SIZE, VALUE
455
DOES SIZE EXCEED THRESHOLD ?
NO
YES
460
STORE CHARACTERISTIC POINT AS COMPRESSED SIGNAL OR STORE IN BUFFER FOR ADDITIONAL COMPRESSION

Fig. 9

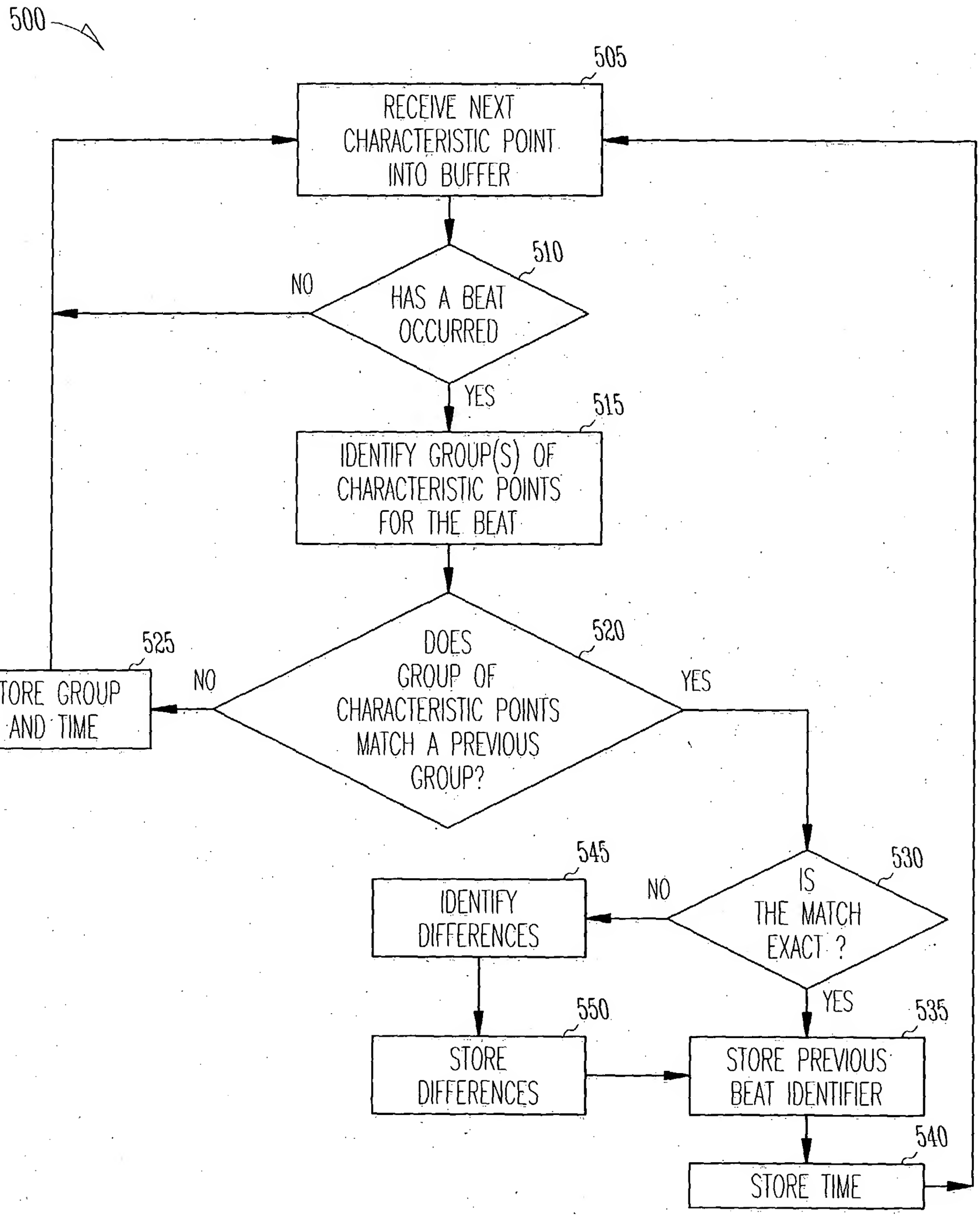
500
505
RECEIVE NEXT CHARACTERISTIC POINT INTO BUFFER
510
HAS A BEAT OCCURRED
NO
YES
515
IDENTIFY GROUP(S) OF CHARACTERISTIC POINTS FOR THE BEAT
520
DOES GROUP OF CHARACTERISTIC POINTS MATCH A PREVIOUS GROUP?
NO
YES
525
STORE GROUP AND TIME
530
IS THE MATCH EXACT ?
NO
YES
535
STORE PREVIOUS BEAT IDENTIFIER
540
STORE TIME
545
IDENTIFY DIFFERENCES
550
STORE DIFFERENCES

Fig. 10

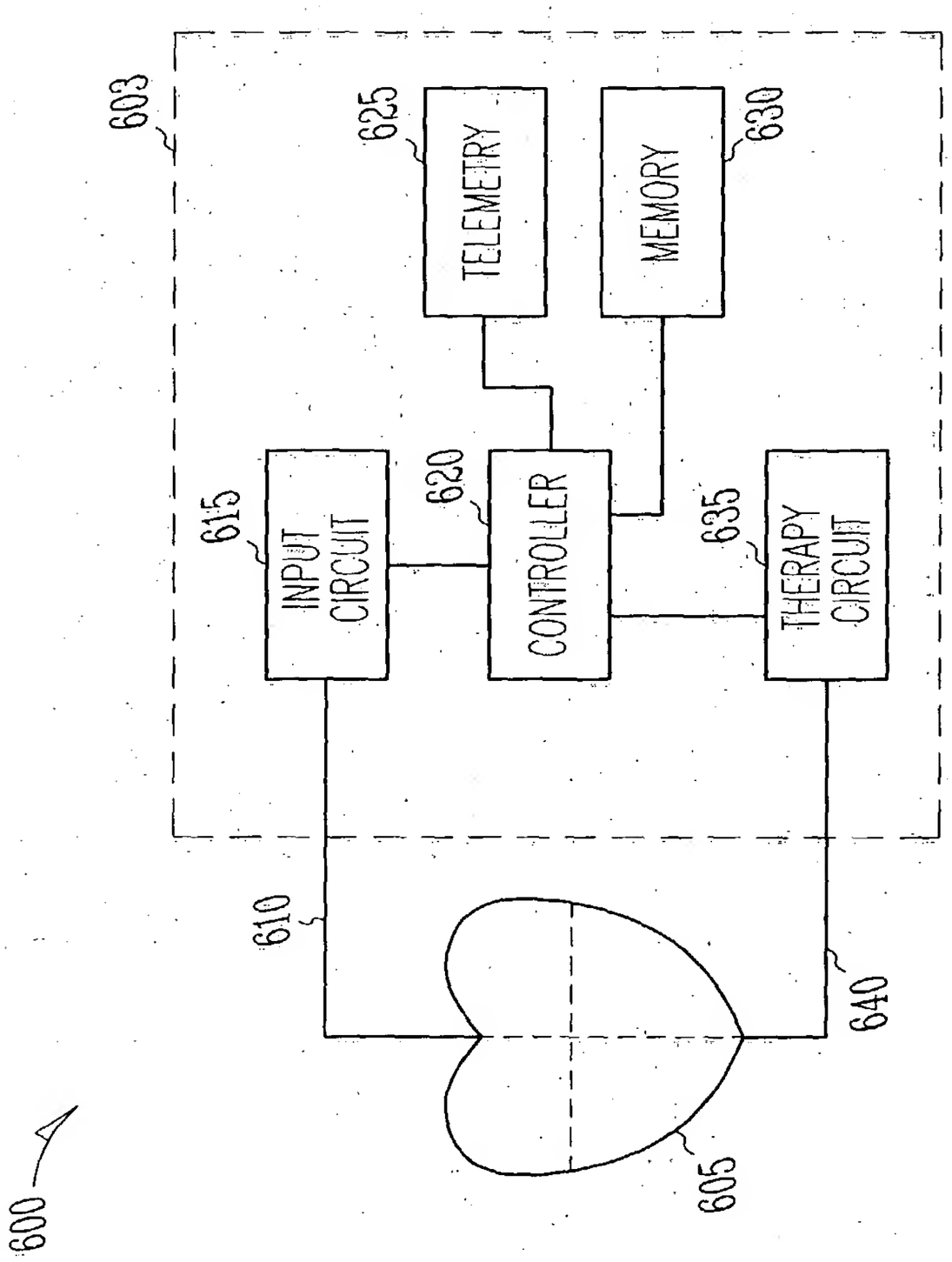
600
603
605
610
615
620
625
630
635
640
TELEMETRY
MEMORY
INPUT CIRCUIT
CONTROLLER
THERAPY CIRCUIT

Fig. 11